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Notes:

1. Untranslatable words are replaced with asterisks (****).
2. Texts in the figures are not translated and shown as it is.

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CLAIM + DETAILED DESCRIPTION

[Claim(s)]

[Claim 1]A screen device which has a screen in the lower part of a supply port of a hyperviscous treated material is formed, A blade which pushes a treated material of the above-mentioned hyperviscosity against the above-mentioned screen, and is rotated is formed in a lower end of a drive shaft established above this supply port, A screener of a high viscous material which collected high viscous materials which formed suction space which is located and connects a carrier tank to this carrier tank side under the above-mentioned screen device at a vacuum source, and passed the above-mentioned screen on this carrier tank.

[Claim 2]A screener of the high viscous material according to claim 1 which the above-mentioned suction space is formed with an airtight box, and stored the above-mentioned carrier tank in this box.

[Claim 3]A screener of the high viscous material according to claim 1 formed in the carrier tank itself when the above-mentioned suction space covers a top face of the above-mentioned carrier tank by an airtight lid.

[Claim 4]A screener of the high viscous material according to claim 1 which the above-mentioned supply port has a cylindrical inner direction part which leads to an inlet section which inclines in an inner direction towards a lower part from the upper part, and this inlet section, and the above-mentioned blade is inscribed in this inner direction part, and rotates.

[Claim 5]A screener of the high viscous material according to claim 1 in which an upper end of the above-mentioned drive shaft is connected with a motor shaft via distributor shaft coupling, and a blade holder holding the above-mentioned blade is connected with a lower end of the above-mentioned drive shaft via a connection cylinder.

[Claim 6]A screener of the high viscous material according to claim 1 in which it turns to the above-mentioned supply port so that rotation of a supplied hyperviscous treated material may be prevented, and a stop piece is provided.

[Detailed Description of the Invention]

[0001]

[Field of the Invention]In the manufacturing process of metal paste, an adhesive bond, a sealing agent, and other high viscous materials, this invention relates to the screener of the high viscous material used for the processing for making particle diameter uniform or removing an impure ingredient, after performing kneading or distributed processing.

[0002]

[Description of the Prior Art]When manufacturing metal paste and other high viscous materials, are filtering the treated material by the screener which has a screen of a necessary mesh, and churning wings rotated in the upper part, but. When highly precise refining that a mesh exceeds #400 was required, ***** was produced on the screen and the amount of discharge might decrease extremely. In such a case, although the supply side was made into the airtight structure, the treated material was pressurized at the screen and the method of this pushing out from this screen was taken, Since resisting pressure structure and an airtight structure had to be provided in each parts, such as shaft seal, such as a drive shaft of the above-mentioned churning wings, and structure of an airtight lid, the whole device was complicated, it became expensive, and there was a problem that it was difficult to defoam even if air bubbles are moreover contained in the treated material.

[0003]

[Problem to be solved by the invention]Solution SUBJECT of this invention is providing the screener of a high viscous material which it can be used conveniently for a hyperviscous treated material as mentioned above, and the good amount of discharge is obtained also on the screen of the small mesh of an eye difference, and enabled it to also perform defoaming out of material easily.

[0004]

[Means for solving problem]According to this invention, the screen device which has a screen in the lower part of the entrance slot of a hyperviscous treated material is formed, The blade which pushes the treated material of the above-mentioned hyperviscosity against the above-mentioned screen, and is rotated is formed in the lower end of the drive shaft established above this entrance slot, The suction space which is located and connects a carrier tank to this carrier tank side under the above-mentioned screen device at a vacuum source is formed, the screener of a high viscous material which collected the high viscous materials which passed the above-mentioned screen on this carrier tank is provided, and above-mentioned SUBJECT is solved.

[0005]According to this invention, by forming the above-mentioned suction space with the

airtight box which stores a carrier tank, or covering the top face of a carrier tank by an airtight lid, the above-mentioned screener formed in the carrier tank itself is proposed, and above-mentioned SUBJECT is solved.

[0006]

[Mode for carrying out the invention]Drawing 1 shows one embodiment of this invention. In the figure, the supply port (2) which throws in a hyperviscous treated material is formed above a main part (1), and the screen device (5) which put the screen (4) on the lower part of this supply port (2) on the slit plate (3) is formed in it.

[0007]As shown in drawing 2, the above-mentioned supply port (2) has a cylindrical inner direction part (7) which follows the lower end of the inlet section (6) of reversed conical shape, and this inlet section (6) which inclines in an inner direction towards a lower part from the upper part, and has attached to the plinth (9) the flange (8) formed in the outer edge of the above-mentioned inlet section (6) removable.

[0008]The flange (11) of the screen device (5) is attached to the flange (10) formed in the lower end of the inner direction part (7) of the above-mentioned supply port (2) removable, and the above-mentioned screen (4) and the slit plate (3) are fastened to it between this flange (10) and (11). The proper sealing member is provided in the bonded surface of each member.

[0009]The above-mentioned slit plate (3) is formed in the shape of [which has hole / of an approximately hexagon / (12) --] a thin strip, as shown in drawing 4, but can be formed in proper-shaped a hole, a crevice, etc., and has piled up the screen (4) of the desired number of meshes according to the treated material on it.

[0010]The motor (14) is formed, and the baffle of the tubed distributor shaft coupling (16) is carried out to a motor shaft (15), and it has attached to the frame (13) provided above the above-mentioned main part (1) with the screw thread (17). The upper end of a drive shaft (19) is inserted in the insertion hole (18) of this distributor shaft coupling (16) in the state of a baffle, and is attached firmly to it with the screw thread (20), and the lower end of this drive shaft (19) has extended above the above-mentioned supply port (2) (drawing 3).

[0011]The blade (21) which pushes the treated material of the above-mentioned hyperviscosity against the above-mentioned screen, and is rotated is formed in the lower end of this drive shaft (19). This blade (21) is formed with the rubber material in which others are [polyurethane being rubber and] proper, and is held at the blade holder (22). The engaging projection (24) of the shape of a corner guard which has a mounting hole (23) is formed in the upper surface center part of this blade holder (22), and the connection cylinder (26) which has a receiving groove (25) which engages with this engaging projection (24) is provided. This connection cylinder (26) has a receiving hole (27) inserted in the lower end of the above-mentioned drive shaft (19) in the state of a baffle, and is attached firmly to a drive shaft with a screw thread (28), and inserts a screw thread (29) in the above-mentioned mounting hole (23), and has

attached the above-mentioned blade holder (22) (drawing 6).

[0012][the small diameter part (30) formed in the above-mentioned drive shaft (19)] The half-segmented flange (31) combined as fastens this drive shaft (19) from both sides is attached, and the tip of screw-thread arrival *Perilla frutescens* (L.) Britton var. *crispa* (Thunb.) Decne. is made in contact [the tap bolt (32) prolonged in this half-segmented flange (31) in a sliding direction] with the lower end of the above-mentioned distributor shaft coupling (16). Thereby, when a treated material is pushed, the reaction force transmitted from the above-mentioned blade to a drive shaft (19) towards the upper part can be distributed and supported.

[0013]The piece of a baffle (33) radially prolonged so that the treated material of the hyperviscosity supplied to this supply port (2) may not rotate with rotation of the above-mentioned blade is provided in the above-mentioned supply port (2), and it is made to have inserted into the treated material.

[0014]A carrier tank (34) is located under the above-mentioned screen device (5), the suction space connected to this carrier tank side at a vacuum source is formed, and the high viscous materials which passed the above-mentioned screen are collected on this carrier tank.

[0015]although various the above-mentioned suction space can be boiled and formed, the embodiment shown in drawing 1 provides the airtight box (35) which stores a carrier tank (34) in the lower part of the above-mentioned main part (1), and makes the inside of this box (35) suction space (36) by connecting this box (35) to the vacuum source of a vacuum pump (P) etc. The above-mentioned carrier tank (34) opens the lid (37) of a box (35), and is taken in and out, and roller (38) -- to which it shows movement of this carrier tank (34) is provided in the bottom of this box (35). The peephole (graphic display abbreviation) for seeing through the inside of this box is formed in proper parts, such as a side face of this box (35).

[0016]Drawing 7 shows other embodiments of this invention, and does not have a box for forming suction space as shown in the above-mentioned embodiment in this embodiment. Namely, suction space (36) is formed as space of the carrier tank between a carrier tank (34) and a lid (39) itself by covering the top face of a carrier tank (34) by an airtight lid (39), The vacuum pump (P) for attracting the inside of this space is formed in this lid (39), and the screen device (5) etc. which have the almost same above-mentioned supply port (2) as an embodiment, slit plate (3), and screen (4) are formed in this lid.

[0017]The drive shaft (19) turning around the blade (21) inserted in the above-mentioned supply port (2) and this blade (21) is supported by the driving head (41) which attached the motor (40) which drives this drive shaft (19) via a proper means of communication. And it is made to make it have gone up and down this driving head (41) in rise-and-fall cylinders (42), such as an oil hydraulic cylinder. Although the above-mentioned lid (39) and a driving head (41) are connected by the proper connecting mechanism which excluded the graphic display and it is made to make it have gone up and down the above-mentioned lid (39) in the above-

mentioned rise-and-fall cylinder (42) in the embodiment shown in a figure, a lid (39) and a driving head (41) may be separated and provided. A lid and a drive bed are separated or it connects with a sliding direction with play, and the above-mentioned driving head (41) is moved up and down and it may enable it to adjust the thrust of a treated material with a blade (21) during blade rotation.

[0018]If a hyperviscous treated material (43) is supplied to the above-mentioned supply port (2) after ******(ing) and performing kneading and distributed processing, the above-mentioned blade (21) will play the same operation as the squeegee used for screen-stencil etc. by rotation, and will push a treated material against a screen (4). Since this supply port (2) is closed by the hyperviscous treated material itself and it is attracted in the vacuum operation at the suction space side provided under the screen device, The above-mentioned treated material passes the above-mentioned screen easily, even if the number of meshes of a screen is a case of a small eye difference like #400 and #500 grade, and they are collected on a carrier tank.

[0019]When the case where it processed using the screener shown in drawing 1 drawing in according to a vacuum source like this invention was compared with the case where a vacuum is not used, in the case of this invention, one about 3 to 6 times the amount of discharge of this was obtained without producing ********* on a screen, and the air bubbles in a treated material were able to be defoamed certainly.

[0020]

[Effect of the Invention]This invention is constituted as mentioned above and the suction space connected to the vacuum source under the screen device is provided, Since it was made to draw in in a vacuum operation, pushing a hyperviscous treated material against the screen of the above-mentioned screen device with a blade, even if the number of meshes is a small screen of a large eye difference, it can be made to be able to breathe out efficiently, and a high viscous material can also be deaerated simultaneously. Moreover, when the above-mentioned blade loosens the bolt etc. which have attached the drive shaft etc. firmly, it can remove easily, cleaning, exchange, etc. can also be carried out, and it is easy to deal with it, and composition is easy and the screener of an economical high viscous material is obtained.

[Translation done.]